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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,124	09/25/2006	David Roxburgh	36-2015	8934
23117 7590 11/19/2009 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203				
EXAMINER				
VU, BAID				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/594,124

Applicant(s)

ROXBURGH ET AL.

Examiner

Bai D. Vu

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-6, 8 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-6, 8 and 16-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant has amended claims 16 and 17 in the amendment filed on 7/31/2009. Claims 2-6, 8 and 16-18 are pending in this office action.

Response to Arguments

2. Applicant's arguments filed on 7/31/2009 with respect to claims 2-6, 8 and 6-18 have been considered but are moot in view of the new ground(s) of rejection.

Regarding to applicant arguments:

- Applicant asserted, on pages 6-8 that Grantges, Jr. et al. (US Pat. No. 6,510,464 B1), hereinafter Grantges, discloses the connections between the web browser 22 and the system 20 (including DMZ Proxy server 24 and the Application Gateway 38, etc.) are always initiated by the web browser. There is no capability for the system 20 to initiate a connection of any sort to the web browser but rather must always use a connection initiated by the web browser.

In response to applicant's argument, examiner respectfully disagrees because Grantges discloses sending the "options page" included applications to be selected in message 78 to client computer 22 via the proxy servers 34 and 40 interpreted as notification of set up an access to the selected applications (see

e.g., col. 9 lines 6-24; and FIGS. 1-2); and the client computer 22 is authorized to access the selected applications via the proxy servers 34 and 40 (see e.g., FIGS. 5-7).

Furthermore, applicant is reminded that the examiner is entitled to the broadest reasonable interpretation of the claims. The Applicants always have the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater 162 USPQ 541,550-51 (CCPA 1969). Therefore, the aforementioned assertion is moot.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 2-6, 8 and 16-18** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The amended limitation "*the gateway including notification means for initiating an*

unauthenticated and unencrypted connection to one or more of the application hosting sub-systems and transmitting over this or each such connection a notification for notifying said one or more of the application hosting sub-systems that it should initiate a secure authenticated connection with the gateway when the notification means is requested so to do by any one of the services offered by the first sub-system" in claim 16 lines 12-17; and added limitation "*initiating from the notification means to the application hosting sub-system an unauthenticated and unencrypted connection and transmitting over this connection the notification for notifying said application hosting sub-system that it should initiate a secure authenticated connection with the gateway"* in claim 17 lines 15-18, contain subject matter which was not described in the instant specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As such, **claims 2-6, 8 and 18** are rejected as based on the dependencies on the independent claims 16 and 17, respectively.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 2, 8, 16 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Grantges, Jr. et al. (US Pat. No. 6,510,464 B1), (hereinafter Grantges), and further in view of Wilding et al. (US Pub. No. 2005/0050329 A1).

As per **claim 16**, Grantges discloses **a system comprising:**

programmed computer devices which execute program code to provide a first sub-system and a gateway for offering services provided by the first sub-system to one or more application hosting sub-systems via the gateway and a data communications network between said gateway and sub-systems; as (see e.g., col. 4 lines 7-19; and FIGS. 1-2, as the proxy servers 34 and 40 in FIG. 1 are read on the claimed gateway included notification server 220 in Figure 2; the user 18 of a client computer 22 interpreted as application hosting sub-system; and web servers 28.sub.1, 28.sub.2, . . . , 28.sub.3 interpreted as a first sub-system).

the gateway and each application hosting sub-system being arranged to permit each application hosting sub-system to initiate a secure and authenticated connection from each application hosting sub-system to the gateway as (see e.g., col. 5 line 58 to col. 6 line 2; col. 6 lines 37-40; and FIGS. 1-2; as secure connections 52 and 54) **via a non-secure data network connection, and** as (see e.g., FIG. 2, as the insecure network (Internet) 26).

the gateway being logically connected to the first sub-system to enable the services provided by the first sub-system to be provided to each application hosting sub-system as (see e.g., col. 9 lines 19-35; and FIG. 2, as the "options page"

presents a list of authorized applications 24.sub.1, 24.sub.2, . . . , 24.sub.3 for selection by user 18 of client computer 22) **via a secured and authenticated connection**, as (see e.g., FIG. 1; as secure connections 52, 54 and 56).

when the notification means is requested so to do by any one of the services offered by the first sub-system as (see e.g., col. 9 lines 6-24; and FIGS. 1-2, wherein the "options page" in message 78 being sent to client computer 22, interpreted as notification means; but may not be specific to the feature of **the gateway including notification means for initiating an unauthenticated and unencrypted connection to one or more of the application hosting sub-systems and transmitting over this or each such connection a notification for notifying said one or more of the application hosting sub-systems that it should initiate a secure authenticated connection with the gateway**).

However, Wilding et al. discloses the feature of **the gateway including notification means for initiating an unauthenticated and unencrypted connection to one or more of the application hosting sub-systems and transmitting over this or each such connection a notification for notifying said one or more of the application hosting sub-systems that it should initiate a secure authenticated connection with the gateway** which is not explicitly disclosed by Grantges as (see e.g., ¶ 0028 – 0040, as the process starting from the step of transmitting the Temporary Server Public Key from the service gateway 110 to the service client 108 (i.e., interpreted as a notification to verify the authenticated information); until the step of

establishing secure, authenticated and encrypted connection between the service gateway 110 and the service client 108).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Wilding et al. teaching of establishing a secure connection into Grantges system in order to direct a client to establish a secure connection with a server across a public network via a service gateway (Wilding et al., FIG. 1 and ¶¶ 0010 lines 2-4).

As per **claim 17**, Grantges discloses **a method of offering services provided by a first sub-system to one or more application hosting sub-systems via a gateway which includes a notification means for notifying one or more of the application hosting sub-systems that it should initiate a secure authorized connection with the gateway, the gateway and each application hosting sub-system being arranged to permit each application hosting sub-system to initiate a secure and authenticated connection from each application hosting sub-system to the gateway via a non-secure data network connection, and the gateway being logically connected to the first sub-system to enable the services provided by the first sub-system to be provided to each application hosting sub-system via a secured and authenticated connection, the method comprising:**

sending a request from a service wishing to set up a secure and authenticated connection to an application hosting sub-system as (see e.g., col. 9 lines 19-35; and FIG. 2, as the "options page" presents a list of authorized applications

24.sub.1, 24.sub.2, . . . , 24.sub.3 interpreted as a service to user 18 of client computer 22 to make a selection).

However, Grantges does not explicitly disclose:

that the notification means send a notification to a respective application hosting sub-system to notify it that it should initiate a secure authenticated connection with the gateway;

initiating from the notification means to the application hosting sub-system an unauthenticated and unencrypted connection and transmitting over this connection the notification for notifying said application hosting sub-system that it should initiate a secure authenticated connection with the gateway;

causing the application hosting sub-system to set up a secure and authenticated connection with the gateway in response to receipt of the notification; and communicating with the initiating service via said connection.

Wilding et al. discloses:

that the notification means send a notification to a respective application hosting sub-system to notify it that it should initiate a secure authenticated connection with the gateway; as (see e.g., ¶¶ 0028 – 0029, as transmitting the Temporary Server Public Key from the service gateway 110 to the service client 108 (i.e., interpreted as a notification to verify the authenticated information in order to set up a secure, authenticated and encrypted connection between the service gateway 110 and the service client 108).

initiating from the notification means to the application hosting sub-system an unauthenticated and unencrypted connection and transmitting over this connection the notification for notifying said application hosting sub-system that it should initiate a secure authenticated connection with the gateway; as (see e.g., ¶ 0029 – 0040, as the process starting from the step of transmitting the Temporary Server Public Key from the service gateway 110 to the service client 108 (i.e., interpreted as a notification to verify the authenticated information); until the step of establishing secure, authenticated and encrypted connection between the service gateway 110 and the service client 108).

causing the application hosting sub-system to set up a secure and authenticated connection with the gateway in response to receipt of the notification; and communicating with the initiating service via said connection as (see e.g., ¶ 0040, as establishing secure, authenticated and encrypted connection between the service gateway 110 and the service client 108).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Wilding et al. teaching of establishing a secure connection into Grantges system in order to direct a client to establish a secure connection with a server across a public network via a service gateway (Wilding et al., FIG. 1 and ¶ 0010 lines 2-4).

As per **claim 2**, Grantges discloses **the system according to claim 16 in which the notification takes the form of a non-executable data file** as (see e.g., col. 6 lines

36-39; and col. 9 lines 19-34, as the options page in message 80 interpreted as the non-executable data file).

As per claim 8, Grantges discloses **the system according to claim 16, wherein the first sub-system is a backend sub-system which provides services to the gateway, and** (see e.g., col. 4 lines 7-19; and FIGS. 1-2, as each application 24.sub.1, 24.sub.2, . . . , 24.sub.3 includes a respective web server 28.sub.1, 28.sub.2, . . . , 28.sub.3).

wherein the server sub-system acts as a trusted intermediary between each application hosting sub-system and the backend sub-system as (see e.g., (col. 12 line 57 to col. 13 line 3; and FIG. 6, as the trustee provides the user with instructions to access the certificate authority 50 using the user ID/password; and then sends a message 138 to Information Security 48 that contains the information collected from the user 18, including what application(s) are being requested for remote access).

7. Claims 3, 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grantges, in view of Wilding et al., and further in view of Gupta et al. (US Pat. No. 6,763,384 B1).

As per claim 3, Grantges and Wilding et al. do not explicitly disclose **the system according to claim 2 in which the notification takes the form of a simple text file containing an extensible Markup Language, XML, document.**

However, Gupta et al. discloses as (see e.g., col. 8 lines 58-66, as notification is sent in XML (eXtensible Markup Language) contained only information regarding the content and structure of a message).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Gupta et al. teaching of notifying end users over a network of the occurrence of an event into Grantges and Wilding et al. systems in order to notify the occurrence of an event by one or more servers to one or more client processes over a communication network (Gupta et al., col. 3 lines 13-15).

As per **claim 6**, Grantges and Wilding et al. do not explicitly disclose **the system according to claim 16 wherein a single notification server receives notifications from plural services and forwards these to plural client application hosting sub-systems**. However, Gupta et al. discloses as (see e.g., col. 4 lines 56-58; col. 8 lines 30-40; and FIG. 3, as a notification server serves multiple application servers and multiple clients).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Gupta et al. teaching of notifying end users over a network of the occurrence of an event into Grantges and Wilding et al. systems in order to notify the occurrence of an event by one or more servers to one or more client processes over a communication network (Gupta et al., col. 3 lines 13-15).

As per **claim 18**, Grantges and Wilding et al. do not explicitly disclose **computer readable storage media containing a program or suite of computer programs for controlling one or more computer processors to carry out the steps of claim 17 during execution of the computer program or suite of programs**. However, Gupta et al. discloses as (see e.g., col. 4 lines 24-42, as a computer program product having a computer usable medium having a computer program embodied therein, for providing notification of the occurrence of an event over a network).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Gupta et al. teaching of notifying end users over a network of the occurrence of an event into Grantges and Wilding et al. systems in order to notify the occurrence of an event by one or more servers to one or more client processes over a communication network (Gupta et al., col. 3 lines 13-15).

8. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Grantges, in view of Wilding et al., and further in view of Nishizawa et al. (US Pat. No. 6,081,906 A).

As per **claim 4**, Grantges and Wilding et al. do not explicitly disclose **the system according to claim 16 wherein the notification means is operable to run separate threads for controlling the forwarding of separate notifications to the client application**. However, Nishizawa et al. discloses as (see e.g., col. 5 lines 12-35, as multi-thread RPC processing of the event notification).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Nishizawa et al. teaching of implementing the multi-thread processing with queuing into Grantges and Wilding et al. systems in order to achieve faster response time in sending notifications to clients.

9. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over Grantges, in view of Wilding et al., and further in view of Osterman (US Pat. No. 5,935,211 A).

As per **claim 5**, Grantges and Wilding et al. do not explicitly disclose **the system according to claim 16, wherein the notification means includes means for permitting each service provided by the first sub-system to specify the number of times which a notification is to be retried in the event of failure to deliver the notification and means for server retrying to deliver the notification up to the specified number of times in the event of failure to deliver the notification over the non-secure network.**

However, Osterman discloses as (see e.g., col. 7 lines 43-54, as set polling time to every 10 minutes and stop sending if not updated after 25 minutes).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply Osterman teaching of providing status information to the client processes into Grantges and Wilding et al. systems in order to provide a technique that permits client processes to reduce the frequency with which they poll the

server processes. This, in turn, dramatically reduces the burden on the server process imposed by such polling (Osterman, col. 2 lines 51-54).

Conclusion

10. The following prior art made of record on form PTO-892 and not relied upon is cited to establish the level of skill in the applicant's art and those arts considered reasonably pertinent to applicant's disclosure. See **MPEP 707.059(c)**.

Bonefas et al. US- 2002/0052968 A1

Ilnicki et al. US- 6,751,677 B1

Haenel et al. US- 2005/0108574 A1

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bai D. Vu whose telephone number is (571)270-1751. The examiner can normally be reached on Mon - Fri 8:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Neveen Abel-Jalil can be reached on 571-272-4074. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/B. D. V./
Examiner, Art Unit 2165
11/16/2009

/Neeven Abel-Jalil/
Supervisory Patent Examiner, Art Unit 2165